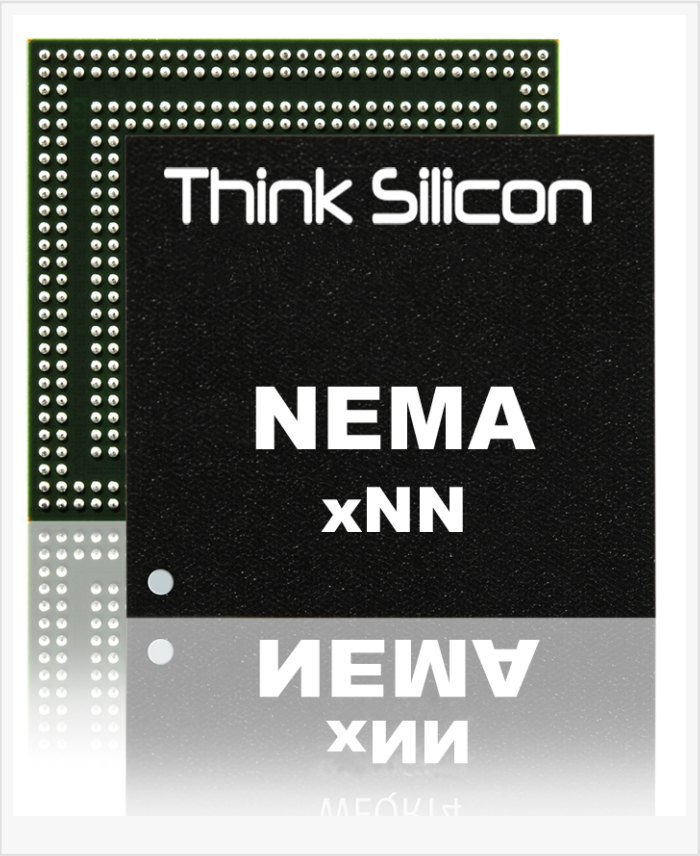
First Low-Power AI-Inference Accelerator Vision Processing Unit From Think Silicon To Debut at Embedded World 2018

Supporting demonstrations to showcase Think Silicon technology leadership for ultra-low power wearable, mobile and embedded display and vision devices



TORONTO, ONTARIO, CANADA, February 21, 2018 /EINPresswire.com/ -- NUREMBERG, Germany
Think Silicon, a leader in developing ultra-low power graphics IP technology, will demonstrate a prototype of NEMA®|xNN, the world's first low-power 'Inference Accelerator' Vision Processing Unit for artificial intelligence, convolutional neural networks at Embedded World 2018. Additionally, supporting demonstrations for attendees will showcase features for ultra-low power 3D GPU and display processing, along with graphics software analysis and development tools. Think Silicon will exhibit in hall 4, booth 4-673 from February 27 to March 1 at the Exhibition Centre, Nuremberg, Germany.

The world premiere prototype demonstration of NEMA®|xNN unveils a power efficient inference accelerator to solve computer-vision tasks in edge-computing applications using optimized convolutional neural networks. The architecture has the ability to scale from single to multi-core and leverages patented real-time compression algorithms to move data efficiently to the on-chip and off-chip memory, while providing 8-bit MAC operations, approximate calculations, data reuse optimizations and delivers memory-latency capabilities.

Think Silicon will also exhibit NEMA® | t – the industry's first ultra-low-power 3D GPU supporting open graphics standard APIs and Vector Graphics for System on a chip (SoC) solutions. Additionally, Think Silicon will showcase supporting software tools including NEMA® | Power-Model, NEMA® | Profiler and NEMA® | SHADER-edit to assist the analysis and development of applications designed to simplify the creation process.

"Think Silicon is excited to debut our first low-power artificial intelligence inference accelerator solution for Embedded World attendees," said Ulli Mueller, Vice President, Marketing & Business Development of Think Silicon. "Think Silicon technologies are designed to empower developers to create exceptional low-power products for a wide variety of markets including, but not limited to, robotics, drones, surveillance, mobile and embedded devices."

NEMA® | t is designed to support mid-range to high-end quality wearables and IoT/embedded devices, which require a more powerful fully supported 3D user interface including SoC solutions with 32-bit MCU or MPU (e.g. ARM® M -and A-Series, Synopsys® ARC EM/HS Family, MIPS® Warrior M/I/P Class) and rely on a more sophisticated OS, such as Android Wear for example.

NEMA® | Power-Model, designed for embedded NEMA® GPUs, enables developers to identify and optimize the most energy inefficient parts of the executed applications, estimating power consumption based on data captured by NEMA® Performance Monitoring Unit (PMU). The tool estimates with high accuracy the energy consumption per component enabling at the same time easy and fast integration of new custom developed power estimation methods.
NEMA®|Profiler is a tool designed to increase productivity and high-quality software-development based on Think Silicon's NEMA®|GPU-Series. Developers benefit from the power consumption and performance analysis that identifies bottlenecks while aided by the statistical analysis of GPU code performance to achieve best-performance balance.

> Think Silicon is excited to debut our first low-power AI inference accelerator on the Embedded World Show. Our technologies are designed to empower developers to create exceptional low-power products"
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> *Ulli Mueller, Vice President, Marketing & BD of Think Silicon.*

NEMA®|SHADER-Edit is a developer-friendly vertex and fragment shading editor with an integrated compiler that allows programmers to easily work with open graphics standard APIs to create and compile quick and optimal GLSL shaders offline. The easy-to-use software interface assists with the smooth and fast generation of NEMA®|tiny GPU executables. For more information about Think Silicon, please visit think-silicon.com

About Think Silicon:
Think Silicon S.A. is a privately held Limited Company located in: Patras/ Greece (HQ), Toronto/ Canada (Business Development & Marketing office), San Jose/CA, USA (Sales office), Cologne, Germany/EMEA region (Sales office), Taipei/TW (Sales office), Tokyo/JP (Sales office). Think Silicon is specialized in developing and licensing high-performance graphics and AI IP technology for ultra-low power and area limited digital mobile, wearable, embedded devices and IoT end-nodes for fabless semiconductor technology customers.

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